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10/722,676	11/25/2003	Steven A. Rogers	006389.00005	7252
22907	7590	06/02/2005	EXAMINER	
BANNER & WITCOFF 1001 G STREET N W SUITE 1100 WASHINGTON, DC 20001			SCHEIBEL, ROBERT C	
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			2666	

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/722,676

Applicant(s)

ROGERS, STEVEN A.

Examiner

Robert C. Scheibel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 20050529 1/15/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Specification*

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the packet network" in line 10 and again in line 11. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "the analog stereo audio data" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claims 2-7 and 9 are rejected as being dependent on indefinite claim 1.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4, 9-11, and 13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,240,084 to Oran et al in view of U.S. Patent 5,974,056 to Wilson et al.

Regarding claim 1, Oran discloses a method of transmitting packets over a computer network (LAN 34 or WAN 36 of Figure 2), comprising the steps of: (1) receiving a plurality of data signals of different data types (analog voice received at the telephony endpoint cards and the data received at the peripheral cards 24) in a device comprising a CPU (voice/data router card 14 of Figure 2), a backplane bus (the combination of bus 20 and bus 26 of Figure 2), and a plurality of modules coupled to the backplane bus (the modules coupled to the backplane bus), wherein each of the plurality of modules receives one of the plurality of different data types and presents each data type to the CPU over the backplane bus; (2) in the CPU, converting each data signal into network packets (see lines 59-62 of column 2) and transmitting the network packets over a packet network interface to a Wide Area Network (WAN) (see lines 59-62 of column 2). Oran also discloses the analogous limitations of claim 10.

Oran does not disclose expressly the limitation of synchronizing delivery of the network packets with other devices. Oran also does not disclose expressly the limitation of claim 10 of an internal timing system. However, this is well known in the art. For example, Wilson discloses the limitation of synchronizing delivery of the network packets over the packet network interface with other devices coupled to the packet network in such a way that congestion is avoided on the packet network throughout the patent; for example, consider the passage in lines 38-42 of column 6 which describes the start of this synchronization method in which a master station is selected which in turn sends out a start packet to synchronize the other devices. Additionally,

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this also implies that the stations of Wilson have an internal timing system capable of synchronizing with one or more network time sources; the master station represents a network timing system and if the stations are able to successfully transmit within their assigned time frames, they have thus synchronized with the network time source. Oran and Wilson are analogous art because they are from the same field of endeavor of transmitting digital voice data in frames/packets. At the time of the invention it would have been obvious to a person of ordinary skill in the art to synchronize multiple devices like the one described in Oran with a method similar to that described in Oran. The motivation for doing so would have been to allow multiple devices to share a transmission medium in a deterministic way such that each device is aware of when it can use the medium as suggested by Wilson in lines 23-29 of column 2). Therefore, it would have been obvious to combine Wilson with Oran for the benefit of allowing multiple devices to share a common transmission medium to obtain the invention as specified in claims 1 and 10.

Regarding claim 2, the combination of Oran and Wilson discussed above discloses the limitation that step (3) comprises the step of synchronizing delivery of the network packets over an Ethernet network interface with other devices so as to avoid congestion over an Ethernet. Oran clearly indicates that interfaces 30 and 32 can be Ethernet (see lines 1-3 of column 3).

Regarding claim 3, the combination of Oran and Wilson described above clearly has a means of indicating the time slots assigned to individual stations and for changing these assignments (see lines 59-66 of column 4 of Wilson). However, Wilson does not explicitly define the signaling format used to convey these assignments and/or changes. However, at the time of the invention, it would have been obvious to one of ordinary skill in the art to select a

map as the means of transmitting this information. The motivation for doing so is that a map can quickly indicate the assignment of all time slots to all stations in one message and is thus an efficient means of disseminating time slot assignments. Therefore, it would have been obvious to modify the above combination of Oran and Wilson to specifically use a map as the format for disseminating time slot assignments.

Regarding claim 4, Oran clearly discloses the limitation of receiving voice data as one of the plurality of data signals throughout (see element 18 of Figure 2 for example).

Regarding claims 9 and 13, Oran discloses the limitation that step (1) comprises the step of receiving Ethernet data packets from a network separate from the network interface and presenting the Ethernet data packets to the CPU over the backplane bus in elements 24 of Figure 2. While these are not explicitly listed as Ethernet cards, Oran describes them as “conventional” PC peripheral cards; Ethernet cards are well known conventional peripheral cards.

Regarding claim 11, Oran clearly discloses the limitation that one of the plurality of modules receives voice data and presents digital voice signals and presents the digital voice signals to the CPU in the telephony endpoint cards 18 of Figure 2 and their associated description in the detailed description.

Regarding claim 14, Oran discloses the limitation that one of the plurality of modules coupled to the backplane bus comprises a synchronous data interface that receives synchronous data and presents it to the CPU over the backplane bus in the TDM interface 26 of Figure 3.

Regarding claim 15, Oran discloses the limitation that one of the plurality of modules coupled to the backplane bus comprises an asynchronous data interface that receives

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asynchronous data and presents it to the CPU over the backplane bus in the UART 68 of Figure 3.

Regarding claim 16, the combination of Oran and Wilson described above discloses the limitation that the timing system synchronizes delivery of packets with other devices coupled to the same packet network, so as to avoid congestion on an Ethernet. Recall that the timing system is the synchronization with the master station and that this is done for the purpose of synchronizing deliver of packets with other devices.

Regarding claim 17, the combination of Oran and Wilson described above discloses the limitations that each device is coupled to the same packet network and that each device synchronizes packet delivery over the packet network with packet delivery in the other devices so as to avoid congestion on the packet network. Figure 1 of Wilson clearly indicate that the devices are coupled to the same packet network and the description throughout indicates that the synchronization method described above is used to synchronize the transmission of packets on this common network.

Regarding claim 18, the combination of Oran and Wilson described above discloses the limitation that each device synchronizes packet delivery over the packet network by agreeing upon time slots during which network packets will be delivered over the packet network in lines 65-66 of column 4 of Wilson which clearly indicate that the stations can communicate for the assignment and changing of allocated time slots.

Regarding claim 19, the combination of Oran and Wilson described above clearly has a means of indicating the time slots assigned to individual stations and for changing these assignments (see lines 59-66 of column 4 of Wilson). However, Wilson does not explicitly

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define the signaling format used to convey these assignments and/or changes. However, at the time of the invention, it would have been obvious to one of ordinary skill in the art to select a map as the means of transmitting this information. The motivation for doing so is that a map can quickly indicate the assignment of all time slots to all stations in one message and is thus an efficient means of disseminating time slot assignments. Therefore, it would have been obvious to modify the above combination of Oran and Wilson to specifically use a map as the format for disseminating time slot assignments.

6. Claims **5-8, 12, and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,240,084 to Oran et al in view of U.S. Patent 5,974,056 to Wilson et al and in further view of U.S. Patent Application Publication 2004/0160340 to Thomson et al.

Regarding claim **20**, Oran discloses a method of reducing contention on an Ethernet LAN coupled to a Wide Area Network (WAN), comprising the steps of: (1) collecting in a single device a plurality of different data signals including at least analog voice data, wherein the received data signals are not synchronized with each other (analog voice received at the telephony endpoint cards and the data received at the peripheral cards 24); (2) converting each of the plurality of different data signals into digital form (done in the telephony endpoint cards 16 of Figure 2); (3) transmitting the data signals in digital form (step 86 of Figure 4) from step (2) over a backplane bus to a CPU (voice/data router card 14 of Figure 2) in the device; (4) in the CPU, converting the digital data into network packets destined for delivery over the Ethernet LAN and over the WAN (step 88 of Figure 4 and lines 59-62 of column 2).



Oran does not disclose expressly the limitation that at least one of the plurality of signals is analog video data. Oran also does not disclose the limitation of scheduling the network packets over the Ethernet LAN to avoid contention among other devices. The limitation of scheduling network packets to avoid contention among other devices is well known in the art. For example, Wilson discloses the limitation of synchronizing delivery of the network packets over the packet network interface with other devices coupled to the packet network in such a way that congestion is avoided on the packet network throughout the patent; for example, consider the passage in lines 38-42 of column 6 which describes the start of this synchronization method in which a master station is selected which in turn sends out a start packet to synchronize the other devices. Oran and Wilson are analogous art because they are from the same field of endeavor of transmitting digital voice data in frames/packets. At the time of the invention it would have been obvious to a person of ordinary skill in the art to synchronize multiple devices like the one described in Oran with a method similar to that described in Oran. The motivation for doing so would have been to allow multiple devices to share a transmission medium in a deterministic way such that each device is aware of when it can use the medium as suggested by Wilson in lines 23-29 of column 2).

However, the combination of Oran and Wilson does not disclose expressly the limitation that at least one of the plurality of signals is analog video data.

Thomson discloses the limitation of also using video data in the combination of Oran and Wilson throughout (see the abstract for example). Oran, modified, and Wilson are analogous art because they are from same field of endeavor of transmitting real time digital data. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify the

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combination of Oran and Wilson to also send video data. The motivation for doing so would have been to provide improved security monitoring as suggested throughout Thomson (see paragraphs 2 and 3 on page 1, for example). Additionally, consider that Wilson clearly indicates air traffic control facilities as an application (see the abstract, for example). Therefore, it would have been obvious to combine Thomson with Oran, modified, for the benefit of improved security monitoring to obtain the invention as specified in claim 20.

Regarding claims **5-8 and 12**, Oran, modified, discloses all the limitations of the parent claims 1 and 10 as described above. Oran also clearly discloses the limitation of one of the data signals being voice data (claim 6) as discussed above. However, Oran, modified, does not disclose expressly the various limitations these claims regarding video and audio data in addition to the voice data of Oran.

Thomson discloses the limitation of receiving video data as one of the plurality of data signals (claims 5, 6, and 12) throughout (see the abstract for example). Regarding claim 7, while Thomson does not explicitly disclose the step of receiving analog video data and converting it to digital form, it is well known that video data is analog by nature and must be converted to digital form at some point after the capture. Regarding claim 8, the limitation of receiving audio data is also disclosed throughout Thomson (see the abstract, for example). While the audio data is not explicitly described as being stereo, it is well known that stereo provides more precise audio information. Oran, modified, and Wilson are analogous art because they are from same field of endeavor of transmitting real time digital data. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify the combination of Oran and Wilson to also send video and audio data. The motivation for doing so would have been to provide

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improved security monitoring as suggested throughout Thomson (see paragraphs 2 and 3 on page 1, for example). Additionally, consider that Wilson clearly indicates air traffic control facilities as an application (see the abstract, for example). Therefore, it would have been obvious to combine Thomson with Oran, modified, for the benefit of improved security monitoring to obtain the invention as specified in claims 5-8 and 12.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert C. Scheibel whose telephone number is 571-272-3169. The examiner can normally be reached on Monday and Thursday from 6:30-5:00 Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*RC S 5-29-05*

Robert C. Scheibel  
Examiner  
Art Unit 2666

*Seema S. Rao*  
**SEEMA S. RAO** 5/31/05

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TECHNOLOGY CENTER 2600**